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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,131	03/12/2004	Stephen C. Ellis	KAZAK-017XX	6931

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TEN POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER

DINH, TIEN QUANG

ART UNIT	PAPER NUMBER
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3644

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06/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,131	Applicant(s) ELLIS ET AL.	
	Examiner Tien Dinh	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64, 66-69 and 71-110 is/are pending in the application.
4a) Of the above claim(s) 37, 46-56, 66, 72 and 85-110 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36, 38-45, 57-64, 67-69, 71 and 73-84 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33, 35, 38, 39, 40, 64, 67-69, 71, and 74-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Schmittle and Vaux.

Brown discloses a helicopter having shoes that are attached to the landing element of the vehicle. The shoe has a base and substrate (see figures 2 or 5). It is a well known design choice to make them integral. The shoe is curved. Brown is silent on the passive retaining elements on the skid with the complementary parts to engage the skid and the landing pad. However, Schmittle discloses that landing elements that have parts to engage a complementary part on the landing area is well known (see figure 2). The passive engagement means are hooks and loops that extend from a base. Vaux teaches that landing pads are well known in the art. The landing pad has substrates and base (well known design choice to make them integral). Vaux also shows that the base includes load carrying members operative to transfer a load on the landing pad to a supporting surface. The load carrying members are unidirectional. Vaux also discloses flexible straps. See figures.

It would have been obvious to one skilled in the art at the time the invention was made to have used complementary engaging parts on the shoes of Brown along with a landing pad having

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base and substrates that has the other complementary engaging parts as taught by Schmittle and Vaux to allow the helicopter to land safely and quickly.

The examiner takes official notice that passive retaining medium such as sticky medium, tap, putty, adhesive, etc. are well known. Plus, it is a mere substitution of parts to used these alternatives. The application has not cited the criticality to these elements.

Please note that stems with caps are design choices that one skilled in the art would have used as a mere substitution of parts. Furthermore, it is a design choice to make the passive retaining medium out of elastomeric and polyolefin material to better accommodate the landing system.

RE claims 30, 31, and 33, it is an obvious design choice to use polyurethane material for the matrix material to make the pad more durable. Also it would have been obvious to use fiberglass to make the pad more durable.

Re claims 67-69, please note that it is a design choice to make the shoes in any “flexibility” so as to allow the aircraft to land safely.

The examiner takes official notice that transport carts with hoist mechanism, jack mechanisms, etc. are well known in the art.

Re claims 78-84, these claims are intended use. The landing pads can used in any environment in which the helicopters will land.

The examiner will not address the amended portions of the claims. Re claims 1 and 29, please note that “for a lightweight aerial vehicle....therefrom” is intended use and carries no

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patentable weight. The term lightweight is broad. Vaux landing pads comprises a base 30 that has load carrying members, which can be interpreted as parts 22, 23. See figures 2-4. The securing system can be the paste U that is used to secure the pad to the supporting surfaces G. Please also note the examiner takes official notice also that securing systems such as nails, tacks, staples, etc. used to secure materials to the supporting surfaces are very well known in this day and age.

Please note that Brown teaches that the shoes are removably mountable to the landing element via fastening system 21, 20 are well known. The shoe comprises a base (see figures 2 and 5).

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown as modified by Schmittle and Vaux as applied to claims 1 and 29 above, and further in view of Gerstin.

Brown as modified by Schmittle and Vaux discloses all claimed parts except for the rod. However, Gerstin discloses that rods are well known to be used as load carrying members.

It would have been obvious to one skilled in the art at the time the invention was made to have used rods in Brown as modified by Schmittle and Vaux's system as taught by Gerstin to create a safer, stronger landing pad. It is also a mere substation of parts.

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Claims 36, 57-63, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown as modified by Schmittle and Vaux as applied to claim 1 above, and further in view of Wellman.

Brown as modified by Schmittle and Vaux discloses all claimed parts except for the rollable landing pad and the corresponding parts. However, Wellman discloses load carrying members to transfer a load on the landing pad to a supporting surface and rollable landing pads with securing system with fittings/clamps 41 that are connected to ropes/straps 40 that are connected to the pads with rings/loops are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have made the pads rollable and use load carrying members and securing system with fittings/clamps 41 that are connected to ropes/straps 40 that are connected to the pads with rings/loops in Brown's system as modified by Schmittle and Vaux and as taught by Wellman to allow the pads to be stored and safely deployed and allow the aircraft to land nearly anywhere safely. Please note that the use of transport carts to store and transport pads are well known in the art. Hence, one skilled in the art can use a cart in place of other vehicles.

Claims 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown as modified by Schmittle and Vaux as applied to claim 1 above, and further in view of Eftestol.

Brown as modified by Schmittle and Vaux discloses all claimed parts except for the pads being made out of smaller parts joined together with joint fittings. However, Eftestol discloses that pads used to make a bigger pad having joint fittings and load carrying members re well known.

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It would have been obvious to one skilled in the art at the time the invention was made to have used multiple pads with joint fittings to make a bigger pad and load carrying members in Brown's as modified by Schmittle and Vaux and as taught by Eftestol to allow easier storage.

Re claims 43 and 44, please note that hinged joint fittings that are removably affixed are well known in the art. The examiner takes official notice that this is well known in the art.

Response to Arguments

The examiner thanks the applicant for the response. However, the claims are still read upon by the recited prior arts above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is obvious to use a landing pad that contains one part of a "hook and loop" system while the other complementary part of the hook and loop system is attached to the landing shoes of the helicopter so that landing is safer and "tighter".

Conclusion

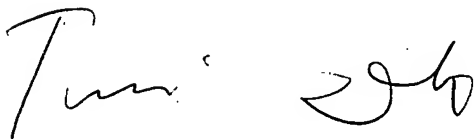
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

A handwritten signature in black ink, appearing to read "Tien Dinh", followed by a stylized flourish or second signature.